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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bianca Brogmann

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EXAMINER

HELM, CARALYNNE E

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/510,673	Applicant(s) BROGMANN ET AL.	
	Examiner CARALYNNE HELM	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2008 and 23 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-19 and 24-54 is/are pending in the application.
- 4a) Of the above claim(s) 27-40 and 50-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-19, 24-26 and 41-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

To summarize the current election, applicant elected Group I and the species containing an opioid analgesic salt and an opioid antagonist salt are present where alkaline or water-swellaable substances as well as acrylic acid and/or hydroxyalkylcelluloses are absent.

Claim Objections

Claim 1 is objected to because of the following informalities: two Markush groups are recited in the claims that use open claim language instead of the appropriate closed claim language. According to MPEP 2173.05(h), "[a]lternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being 'selected from the group consisting of A, B and C.' See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925)...It is improper to use the term 'comprising' instead of 'consisting of.' *Ex parte Dotter*, 12 USPQ 382 (Bd. App. 1931)." Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 41 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification discloses chemicals, such as acrylic acid copolymers cyanoethylmethacrylate, aminoalkylmethacrylate copolymers, poly(acrylic acid), poly(methacrylic acid), polymethacrylates, poly(methylmethacrylate) copolymers, and polyacrylamine in reference to claim 41, while no examples of particular pharmaceutically active compound derivatives are provided which meet the written description and enablement provisions of 35 USC 112, first paragraph. However, claims 1 and 41 are directed to encompass derivatives, which only correspond in some undefined way to specifically instantly disclosed chemicals. Regarding claim 41, a structure-function has not been established between these substances and the water-swallowable property they are required to display. A structure-function relationship is also absent in the "derivatives" referenced in claim 1. Therefore the broad description of derivatives does not meet the written description provision of 35 USC § 112, first paragraph, due to lacking chemical structural information for what they are and chemical structures are highly variant and encompass a myriad of possibilities. The specification provides insufficient written description to support the genus encompassed by the claim.

Vas-Cath Inc. v. Mahurkar, 19 USPQ2d 1111, makes clear that "applicant must

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convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of *the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." (See page 1117.) The specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See Vas-Cath at page 1116.)

With the exception of the specifically disclosed chemical structures, the skilled artisan cannot envision the detailed chemical structure of the encompassed derivatives. Finally, University of California v. Eli Lilly and Co., 43 USPQ2d 1398, 1404, 1405 held that:

...To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

Therefore, only the chemically structurally defined chemicals, but not the full breadth of the claim meets the written description provision of 35 USC § 112, first paragraph. The species specifically disclosed are not representative of the genus because the genus is highly variant. Applicant is reminded that Vas-Cath makes clear that the written description provision of 35 USC § 112 is severable from its enablement provision. (See page 1115.)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear which pharmaceutically active compounds serve as the parent compound for the “and derivatives thereof” recitation in claim 1 because this recitation falls in the middle of a listing of compounds and does not appear to be linked to any particular one/subset.

Applicant claims the absence of “relevant amounts” of alkaline and/or water swellable substance as well as derivatives of acrylic acid and/or hydroxyalkylcelluloses in claims 4 and 41; however, what actual quantity constitutes a relevant amount is unclear. The disclosure teaches generally away from using these components, but it also teaches away from using polyvinylpyrrolidone (see specification page 17 lines 11-18) then explicitly claims the inclusion of povidone (see claim 6), which is another name for the same component. Therefore it is unclear what is meant by the composition not comprising “relevant amounts” of a particular component.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully considered and analyzed in the rejections that follow.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 12-19, 24-26 and 41-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (EP 0699436 – see IDS) in view of Sackler et al. (U.S. Patent No. 7,332,182) and Oshlack et al. (U.S. Patent No. 6,306,438).

Miller et al. teach an oral controlled (sustained) release composition that releases the hydrochloride salt of the opioid analgesic tramadol (see abstract and page 2 lines 6-18; instant claims 1, 12, 17, and 24). Miller et al. also teaches an uncoated tablet with tramadol hydrochloride, ethylcellulose, lactose, cetostearyl alcohol (also known as cetylstearyl alcohol), magnesium stearate, and purified talc (see page 7 example 1; instant claims 1-8, 16-17, 41, 42, and 44). Further, Miller et al. teach the inclusion of additional components in the tablet composition including diluents, lubricants, binders and glidants, particularly exemplifying dibutyl sebacate as one particular other ingredient (see page 4 lines 48-50; instant claim 9). Additionally, Miller et al. teach that the composition contains at least one long chain hydrocarbon (e.g. cetostearyl alcohol) and that these compounds can be fatty acids as well as fatty alcohols (see page 4 lines 32-33). In particular, Miller et al. teach these hydrocarbons to be C₁₂-C₄₀, which includes stearic acid (see page 4 lines 32-33; instant claim 43). In light of these teachings, it would have been obvious to one of ordinary skill in the art at the time invention was made to have included stearic acid in the taught composition. Furthermore, production of particular release kinetics based upon the proportions and arrangement of constituents would be known to one of ordinary skill in the art. The Miller et al. reference specifically teaches the varying amounts of the matrix components (see page 4 lines 41-47), thus at the time of the claimed invention, it would have been well within the

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purview of one of ordinary skill in the art to optimize such parameters as a matter of routine experimentation. Miller et al. do not specifically teach the inclusion of an opioid antagonist in their taught composition nor do they address the stability of the composition over a two year period.

Sackler et al. teach the combination of an opioid analgesic and antagonist in an oral composition to provide pain relief and also prevent addiction as well as provide a deterrent to parenteral abuse of the product (see column 1 lines 12-19 and 42-45, column 2 lines 29-31 and 44-46 and column 4 lines 35-45; instant claims 1 and 24). Sackler et al. go on to teach that the composition is designed such that the opioid analgesic and antagonist are released over a sustained period (see column 3 lines 51-57). Further, Sackler et al. teach a particular combination, namely the hydrochloride salt forms of naloxone and oxycodone (see table 2; instant claims 12 and 44). Here the opioid to opioid antagonist ratio is taught to preferably be 1:1 to 20:1 (see column 10 lines 37-40; instant claims 14, 26, 46, and 49). An exemplary unit dosage composition is presented with 40 mg oxycodone and 0.9 mg of naloxone (see table 2; instant claims 13, 15, 25, 45, and 48). Routine optimization of the amounts and corresponding proportions of these components would have been obvious to one of ordinary skill in the art to address end-user needs. A person of ordinary skill in the art has a good reason to pursue the known options within their technical grasp. Since both Miller et al. and Sackler et al. teach a sustained release oral opioid composition, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the drug combination of Sackler et al. as the opioid component in the composition of Miller et al.

In addition there would have been a reasonable expectation of success for this combination to one of ordinary skill in the art to at the time of the invention.

Oshlack et al. teach a composition similar to that of Miller et al. where ethylcellulose is combined with stearylalcohol along with other claimed excipients and a tramadol hydrochloride salt (see table 1). Oshlack et al. teach a means by which such a composition would be able to be stored at 25°C with 60% humidity for two years (see column 17 lines 19-37 and column 18 lines 43-49; instant claim 10). Thus it was known at the time of the invention how to obtain the claimed stability characteristics for the product taught by Miller et al. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to product a product that could be stored for at least two years at the recited “standard conditions”.

Instant claims 18-20, 23, and 47 are product by process claims whose processes provide no additional patentable structure to the claimed product. According to MPEP 2113 “ ‘[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.’ In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)”. Therefore since the claimed components and those of Miller et al. in view of Sackler et al. and Oshlack et al are the same, the product taught by this modified Miller et al. reference meet the limitations of these product-by-process claims.

Finally, the limitations of the matrix being a diffusion matrix that is substantially non-erosive, substantially non-swellable, as well as releases the compounds in an invariant and independent manner are viewed as properties of the composition based upon its constituent materials. Thus since Miller et al. in view of Sackler et al. and Oshlack et al. teach the same composition as that claimed, this composition would function in the same manner and have the same properties. It is noted that In re Best (195 USPQ 430) and In re Fitzgerald (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe inherently includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not possess characteristic relied on" (205 USPQ 594, second column, first full paragraph). Therefore claims 1-10, 12-19, 24-26 and 41-49 are obvious over Miller et al. in view of Sackler et al. and Oshlack et al.

Response to Arguments

Applicant's arguments filed October 15, 2008 and February 23, 2009 have been fully considered but they are not persuasive.

Regarding rejections under 35 USC 112 first paragraph:

Applicant argues that one of ordinary skill in the art would know and recognize which derivatives of alkaline and/or water swellable substances applicant references to be excluded in the practice of the invention. The components recited in the claims are

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not derivatives of alkaline and/or water swellable substances, but instead derivatives of acrylic acid and/or hydroxyalkylcelluloses. Applicant has not provided an adequate description of how these compounds are derived. In addition, no correlation between the structure of these compounds and their water swellable property has been established. Therefore one of ordinary skill in the art would not be able to readily envision which compounds were to be excluded from a composition in accordance with the claimed invention.

Regarding rejections under 35 USC 112, second paragraph:

Applicant argues that the inventors were in position of the invention as claimed at the time of the invention. Possession of the invention was not at issue in this rejection, but instead the clarity with which applicant defines the invention when reciting the absence of a “relevant amount” of a material. As noted in the rejection, applicant teaches away from the inclusion of several materials in the disclosure, yet then recites the explicit presence of one of those very same components. Further it is not clear how much of an undesired material can be present without altering the undisclosed “sustained release characteristics” of the claimed invention in the eyes of the applicant.

Regarding rejections under 35 USC 103(a):

Applicant argues that the teachings of alkylcelluloses as preferred polymer in the controlled release matrix of US Patent No. 6,603,438 preclude its teachings from being applicable to the instant invention since it generally teaches away from using these

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substances. Based upon the text cited by applicant, these arguments are directed toward EP 0699436, Miller et al. Although Miller et al. and the instant specification appear to be at odds in this teaching, both also teach and/or exemplify ethylcellulose as an explicitly envisioned polymer in the pharmaceutical matrix. Oddly, in spite of applicant's teachings away from alkylcelluloses, ethyl cellulose, an alkylcellulose, is a key component of the claimed invention.

Applicant further argues that this reference teaches the presence of hydroxypropylmethylcellulose (HPMC) which is contrary to applicant's teachings. In the quotations of the specification, applicant teaches away from the presence of HPMC in the matrix of the pharmaceutical preparation (see instant specification page 8). Miller et al. does teach the presence of HPMC in one embodiment of the composition, but this component is in a coating not the matrix. Additionally, these coatings are taught to be optional so the tablet formulation referenced in the rejection can easily be prepared in the absence of the HPMC film coating (see example 1 and page 5 line 30). Therefore, the teachings of Miller et al. are applicable to the claimed invention and the rejection utilizing this reference is maintained.

Regarding provisional nonstatutory obviousness-type rejection:

In light of the amendments made to the claims of copending Application No. 10/510674, the provisional nonstatutory obviousness-type rejection is hereby withdrawn.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections detailed above are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARALYNNE HELM whose telephone number is (571)270-3506. The examiner can normally be reached on Monday through Thursday 8-5 (EDT).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Caralynne Helm/
Examiner, Art Unit 1615

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